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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,443	03/29/2002	Akio Satou	12412/1	6966

7590
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11/07/2003

EXAMINER

JOHNSON, JONATHAN J

ART UNIT PAPER NUMBER

1725

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,443

Applicant(s)

SATOU ET AL.

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Krause et al. (5,886,313). With respect to claim 1, Krause et al. teach a method of laser beam machining wherein a plurality of laser diode arrays are disposed in such a manner as to allow radiation of laser beams in a direction of a width of a part to be processed (abstract and Figure 11, Item 15); and wherein each of the laser diode arrays is controlled in accordance with the direction of the width of the part to be processed so as to shape laser beams and irradiate the part to be processed with the laser beams (column 12, Lines 15-21).

With respect to Claim 2, the teachings of Krause et al. are the same as relied upon in the rejection of Claim 1. Krause et al. teach each of the laser diode arrays is controlled and laser beams are shaped such that the distribution of energy is changed in accordance with a width portion of the part to be processed (abstract and Column 12, Lines 15-41).

With respect to Claim 3, the teachings of Krause et al. are the same as relied upon in the rejection of Claim 2. Krause et al. teach the distribution of energy is changed by controlling

each of the laser diode arrays and shaping the laser beams such that laser beams with which the part to be processed is irradiated in its widthwise marginal portions exhibit a higher intensity than laser beams to which the part to be processed is irradiated in its widthwise central portion (Figure 11a, Item 36).

With respect to Claim 4, the teachings of Krause et al. are the same as relied upon in the rejection of Claim 1. Krause et al. teach the distribution the laser beam machining is a processing which is selected from padding, welding, and hardening and to which the part to be processed is subjected (abstract and Column 12, lines 15-42).

With respect to Claim 5, the teachings of Krause et al. are the same as relied upon in the rejection of Claim 2. Krause et al. teach the distribution the laser beam machining is a processing which is selected from padding, welding, and hardening and to which the part to be processed is subjected (abstract and Column 12, lines 15-42).

With respect to Claim 6, the teachings of Krause et al. are the same as relied upon in the rejection of Claim 3. Krause et al. teach the distribution the laser beam machining is a processing which is selected from padding, welding, and hardening and to which the part to be processed is subjected (abstract and Column 12, lines 15-42).

Response to Arguments

Applicant argues that Krause et al. teach a laser diode array device in which laser diode arrays are stacked in a vertical direction one on top of the other. The examiner agrees. Applicant goes on to argue that Krause et al. does not teach the claim limitation “disposing a plurality of laser diode arrays in a direction of a width of a part to be processed in such a manner to allow radiation of laser beam in the direction of the width of a part to be processed.” The examiner disagrees. During patent examination, the pending claims must be “given the broadest reasonable interpretation.” Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). In the instant case, the claim limitation, given its broadest reasonable interpretation, could be construed to include a laser diode array of Krause et al. In particular, Krause et al. teach disposing a plurality of laser diode arrays in a direction of a width of a part to be processed (Figure 11, item 15 and Figure 12, item 15) in such a manner as to allow radiation of laser beams in the direction of the width of a part to be processed (Figure 12, item 22). The examiner would like to note that the plurality of diode arrays forms a rectangular cross section such that the rectangular cross section is projected on the width of the workpiece (see generally Figure 1, Item 12). The rejection is maintained despite applicant’s traversal.

Applicant next argues that Krause et al. does not teach “controlling the direction of the width of the part to be processed so as to shape laser beams and irradiate the part to be processed with the laser beams.” The examiner disagrees. As stated in the previous office action, Krause

et al. teach controlling the direction of the width of the part to be processed so as to shape the laser beams and irradiate the part to be processed with the laser beams in column 12, Lines 15-21. The rejection is maintained despite applicant's traversal.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 703-308-0667. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.

jj
October 21, 2003

A handwritten signature in black ink, appearing to read "Dunn", is positioned above the printed name.

TOM DUNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700